I/WE CLAIM:

1. A washing machine comprising:

a cabinet shell;

an outer tub mounted within the cabinet shell;

an inner tub rotatably supported within the outer tub, said inner tub including front and rear injection zones each having a respective plurality of balancing fluid receiving pockets;

means for detecting an out-of-balance condition of the inner tub; and

a plurality of balancing fluid injector valve assemblies operatively connected to the out-of-balance detecting means, said plurality of balancing fluid injector valve assemblies being adapted to dispense an amount of balancing fluid to select ones of the plurality of balancing fluid pockets based upon a sensed out-of-balance condition, each of said plurality of balancing fluid injector valve assemblies including a solenoid assembly including:

a coil body surrounding a central bore terminating in a pole piece, said pole piece having a surface texture;

a plunger element slidably mounted in the central bore, the plunger element including a first end being associated with an outlet portion of the valve and a second end having an end surface portion including an annular groove about a central portion; and

a resilient ring element positioned in the annual groove and defining a cushion, wherein operation of the solenoid causes the plunger to be drawn into the central bore forcing the resilient ring element against the textured surface of the pole piece, whereby air trapped within the central portion of the resilient ring element is

caused to leak radially outwardly due to the surface texture, thereby causing the plunger to slowly seat against the pole piece.

2. The washing machine according to claim 1, wherein the surface texture is constituted by a plurality of grooves.

3. The washing machine according to claim 1, further comprising: a spring element extending about the plunger, said spring element biasing the first end of the plunger away from the coil body.

4. A valve including an outlet portion and a solenoid assembly comprising:

a coil body surrounding a central bore terminating in a pole piece, said pole piece having a surface texture;

a plunger element slidably mounted in the central bore, the plunger element including a first end being associated with an outlet portion of the valve and a second end having an end surface portion including an annular groove about a central portion; and

a resilient ring element positioned in the annular groove and defining a cushion, wherein operation of the solenoid causes the plunger to be drawn into the central bore forcing the resilient ring element against the textured surface of the pole piece, whereby air trapped within the central portion of the resilient ring element is caused to leak radially outwardly due to the surface texture, thereby causing the plunger to slowly seat against the pole piece.

5. The valve according to claim 4, wherein the surface texture is constituted by a plurality of grooves.

6. The valve according to claim 4, further comprising: a spring element extending about the plunger, said spring element biasing the first end of the plunger away from the coil body.

7. A method of cushioning a plunger for a solenoid valve including a valve coil body having a pole piece comprising:

operating the solenoid valve causing the plunger to be drawn into the valve coil body;

engaging a resilient ring mounted on an end of the plunger with the pole piece; and

decelerating the plunger as the plunger approaches the pole piece by forcing air trapped between a central void defined by the resilient ring and the pole piece to escape through surface textures provided on the pole piece.

8. The method according to claim 7, wherein the air is forced past surface textures constituted by grooves formed in the pole piece.

9. The method of claim 8, wherein the grooves formed in the pole piece are formed by knurling.

10. The method of claim 8, wherein the grooves formed on the back of the pole piece are formed by grit blasting.

11. The method of claim 8, wherein the grooves formed on the back of the pole piece are formed by etching.

12. The method of claim 8, wherein the grooves are formed by sanding.

13. The method according to claim 7, further comprising:

operating the solenoid valve by applying an initial activation voltage to the valve coil body causing the plunger to begin to retract; and

reducing the initial activation voltage to the valve coil body causing the plunger to decelerate.

14. The method of claim 13, wherein the initial activation voltage is higher than a rated voltage of the valve coil body.

15. The method of claim 14, wherein the initial activation voltage is applied for a period of less than 0.2 seconds.

16. The method of claim 13, wherein the initial activation voltage is reduced in a ramp-like function to a voltage slightly higher than a holding voltage for the valve coil body.

17. The method of claim 16, wherein the ramp-like function is a step function causing a sudden decrease in the initial activation voltage.